

542.4.01 Limits**A. Additional Compensation**

No additional compensation will be made for the following:

- Additional material, equipment, or other items the Department requires after its review of the Contractor's alternate for Project Specification conformance
- Changes or deviations from the Contractor's Plan, as approved by the Department
- Additional material, equipment, or other costs needed because of changes in the Contractor's Plan

542.5 Payment**A. Preparation and Review Time**

Charge the time required for preparation of construction plans and design notes to the allowable Contract time.

B. Superstructure

Work performed and materials furnished in place as required by this Specification will be paid for at the Contract Price bid for "Lump Superstr Conc, CL, Br. No." and "Lump Superstr Reinf Steel, Br No."

C. Superstructure—Bridge Complete

Work performed and materials furnished in place as required by this Specification will be paid for at the Contract Price bid for "Lump Construction of Bridge Complete to Bottom of Cap—Alt 4."

542.5.01 Adjustments**A. Partial Payment**

The Department will determine a schedule for partial payments for the lump superstructure items.

Section 543—Bridge Complete**543.1 General Description**

This work consists of constructing the bridge complete as shown in the Contract. The work includes furnishing and placing all bridge components from the bottom of the cap to the top of the superstructure.

543.1.01 Definitions

General Provisions 101 through 150.

543.1.02 Related References**A. Standard Specifications**

Section 211—Bridge Excavation and Backfill

Section 500—Concrete Structures

Section 511—Reinforcement Steel

Sections 500 to 542

B. Referenced Documents

AASHTO Specifications

543.1.03 Submittals**A. Alternative Designs**

The Contractor may submit for approval an alternative design for the portion of the bridge between the top of the superstructure and the bottom of the cap. The alternative design shall meet the following criteria:

- The design conforms to current AASHTO Specifications, including the latest Interim Specifications.
- The design live load is HS20-44, including impact.

Submit the design to the Bridge Engineer for review and approval. Do not begin Work or order materials until the Bridge Engineer approves the Plans in writing.

Include the following in the alternative design:

- Three copies of the Plans bearing a Professional Engineer's Stamp of Approval.
The Engineer may require additional copies of the Plans.
- Two copies of complete design notes for the elements of the structure that are a part of the alternate design.
Bridge Plans developed and published by industry organizations, Federal Highway Administration, and other States may be acceptable without design notes. However, the Bridge Engineer will judge the acceptability of the design notes and the Plans.

If the Bridge Engineer does not accept the design, construct the bridge according to the Contract Plans.

543.2 Materials

Use materials that meet the requirements of the applicable Materials sections of the Specifications. Material references are listed in the Specification sections pertaining to the item of work.

543.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

543.3 Construction Requirements

543.3.01 Personnel

General Provisions 101 through 150.

543.3.02 Equipment

General Provisions 101 through 150.

543.3.03 Preparation

General Provisions 101 through 150.

543.3.04 Fabrication

General Provisions 101 through 150.

543.3.05 Construction

A. Bridge Construction

Construct bridges under this Specification according to the drawings.

B. Order Lengths for Prestressed Concrete Pile

The prestressed concrete pile order lengths shown on the Plans are the estimated pile lengths.

On bridges with more than four bents, the estimated pile lengths shown on the Plans apply to the first four bents constructed. The Engineer will adjust the pile order lengths for the remaining bents based on the pile driving for the first four bents constructed.

Instead of using Plan lengths or lengths determined by the Engineer, the Contractor may determine order lengths by furnishing and driving a test pile in a permanent pile location. There will be no additional compensation for this test pile.

543.3.06 Quality Acceptance

General Provisions 101 through 150.

543.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

543.4 Measurement

Bridge construction complete to the bottom of the substructure caps will be measured for payment based on a lump sum basis for the bridge complete, accepted in place.

543.4.01 Limits**A. Lump Sum Inclusions and Exclusions**

The lump sum includes payment for superstructure elements and substructure caps.

The lump sum does not include the cost of piling portions embedded in the substructure caps as shown on the Plans.

B. Concrete Bent Measurement

Where foundation conditions require the use of a concrete bent instead of a trestle pile bent, concrete and reinforcement steel below the bottom of the substructure cap will be measured and paid for according to Section 500, Section 511, and Section 211.

543.5 Payment

This work will be paid for at the Contract Unit Price bid. Payment will be full compensation for furnishing all materials and completing the Item according to these Specifications.

Payment will be made under:

| | | |
|-------------------|--|--------------|
| Item No. 543-1100 | Construction of bridge complete to bottom of cap | Per lump sum |
|-------------------|--|--------------|

543.5.01 Adjustments

Statements for partial payment include:

| Item | Payment |
|--------------------------|--|
| Caps, each | 20% of Item 543 divided by number of caps |
| Superstructure, per span | 80% of Item 543 divided by number of spans |

Section 544—Deck Drain System**544.1 General Description**

This work includes furnishing deck drainage systems according to Plan details.

544.1.01 Definitions

General Provisions 101 through 150.

544.1.02 Related References**A. Standard Specifications**

Section 645—Repair of Galvanized Coatings

Section 870—Paint

B. Referenced Documents

General Provisions 101 through 150.

544.1.03 Submittals

Submit complete detail Shop Drawings for the deck drain system to the Engineer for approval.

If the deck drain system is for a railway, the Engineer will submit the Shop Drawings to the Chief Engineer of the railway company for approval.

In either case, obtain approval from the Engineer prior to fabrication or installation.

544.2 Materials

Use materials that meet Plan requirements. Use commercial-grade steel hardware (clips, brackets, bars, etc.) unless otherwise noted on the Plans. Use galvanizing repair compound that meets the requirements of Section 870.